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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,751	07/18/2003	Matthew David Tarler	CMD-006	3135

7590 04/05/2005

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EXAMINER

ELLINGTON, ALANDRA

ART UNIT PAPER NUMBER

2855

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/622,751

Applicant(s)

TARLER, MATTHEW DAVID

Examiner

Alandra Ellington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on amendment filed on 12/7/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-20 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/19/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## Final Rejection

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains less than the required range of words. Correction is required. See MPEP § 608.01(b).

### *Drawings*

3. The drawings are objected to because all the elements in the figures are not labeled. For example,

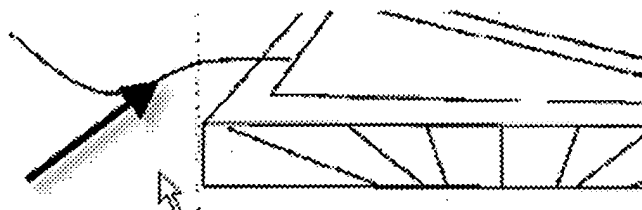


Fig. 6B

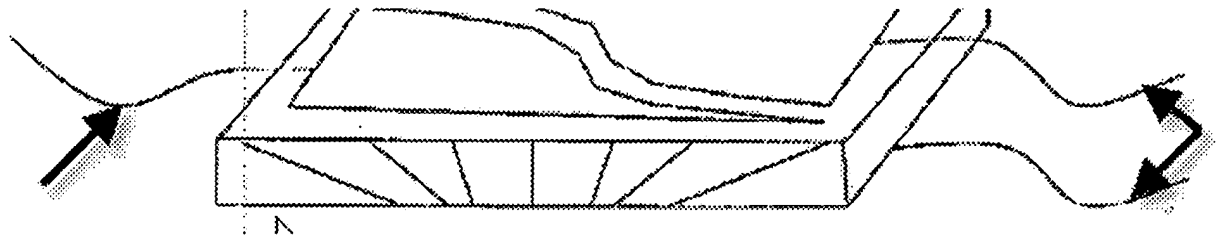


Fig. 6C

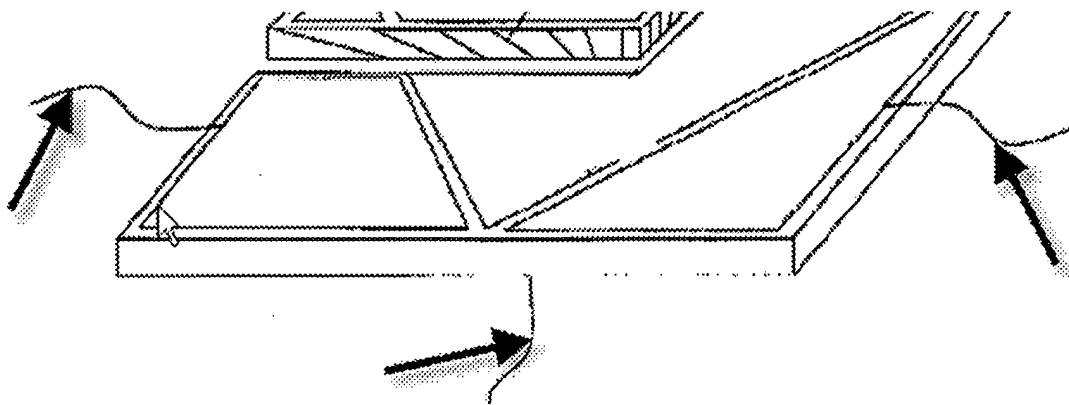


Fig. 7C

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

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remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Taylor (6,216,545).

a. With respect to Claim 1, Taylor discloses a sensor comprising two conductive element layers 80A,82A,132A, and a flexible material 33,34,83A,83B interposed between and in contact with the two conductive element layers 80A,82A,132A; wherein the sensor 130 can be used to simultaneously measure both shear and normal forces applied to the sensor 130 (col. 16 lines 3-5, col. 19 lines 6-59 {Figs. 1,4,21}).

b. With respect to Claim 2, Taylor discloses the sensor in claim 1, wherein the sensor is statically responsive (col. 5 lines 14-15).

c. With respect to Claim 3, Taylor discloses the sensor in claim 2, wherein the flexible material 83A,83B is elastomeric (col. 19 lines 20-22).

d. With respect to Claim 4, Taylor discloses the sensor in claim 2, wherein the flexible material 33 interposed between the two conductive element layers 82A,132A is a composite sheet material comprising a compliant essentially non-conductive matrix 34 and electrically conductive elements 35 (col. 8 lines 47-62).

e. With respect to Claim 5, Taylor discloses the sensor in claim 1, wherein one of the conductive element layers 80A,82A,132A is formed from multiple conductive lines or regions 31,81,132 (col. 19 lines 60-67, col. 20 lines 1-20 {Figs. 1,4,21})).

f. With respect to Claim 6, Taylor discloses a sensor comprising at least two layers of contact material 80A,82A,132A, and a flexible material 33,34,83A,83B interposed between the two layers of contact material 80A,82A,132A; wherein at least one of the layers of contact material 80A,82A,132A is formed from multiple conductive lines or regions, and the sensor 130 can be used to simultaneously measure both shear and normal forces applied to the sensor 130 (col. 16 lines 3-5, col. 19 lines 6-59 {Figs. 1,4,21})).

g. With respect to Claim 7, Taylor discloses the sensor in claim 6, wherein the sensor is statically responsive (col. 5 lines 14-15).

h. With respect to Claim 8, Taylor discloses the sensor in claim 7, wherein the flexible material 83A,83B is elastomeric (col. 19 lines 20-22).

i. With respect to Claim 9, Taylor discloses the sensor in claim 7, wherein the flexible material 33 interposed between the two layers of contact material 82A,132A is a composite sheet material having an upper and a lower surface

comprising a compliant essentially non-conductive matrix 34 and electrically conductive elements 35 (col. 8 lines 47-62).

j. With respect to Claim 10, Taylor discloses the sensor in claim 9, wherein the majority of electrically conductive elements 35 in the composite sheet material 34 when flattened are aligned essentially into columns, the majority of columns in the region with the defined curvature being at angles less than about 90° and greater than about 15° to the lower surface of the composite sheet material 34 ({Figs. 1,4,7F}).

***Allowable Subject Matter***

6. Claims 11-20 are allowed.

7. The following is an examiner's statement of reasons for allowance: The reasons for allowance are based on the inclusion of the method step of *applying at least two flexible, compliant sensors capable of simultaneously measuring both shear and normal forces, to locations on a prototype design of an object or device being designed in combination with the method step of modifying the design of the object or device in part based on the forces encountered by the prototype design during the application or test.*

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(5,844,146) (5,402,151) (5,571,973)

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alandra Ellington whose telephone number is (571) 272-2178. The examiner can normally be reached on Monday - Friday, 7:30am - 4:00pm.



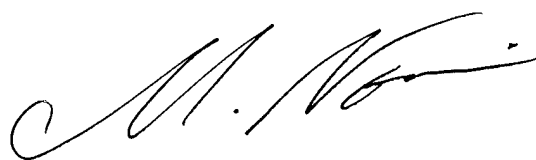
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14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alandra Ellington  
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**MAX NOORI**  
**PRIMARY EXAMINER**